IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A semiconductor module comprising:

a package substrate with a plurality of terminals and a wiring line connected to said terminals;

a plurality of power switching device chips having a first electrode on top surfaces and a second electrode on back surfaces, configured to flow current between said first and second electrode, and being mounted ~~by flip chip bonding~~ above said package substrate while letting said top surfaces face said package substrate;

a drive-use integrated circuit ("IC") chip mounted ~~by flip chip bonding~~ above said package substrate, configured to drive gates of transistors formed in said-plurality of power switching device chips;

a plurality of heat sinks disposed above said second electrode on said back surfaces of said plurality of power switching device chips, electrically connected to said second electrode on said back surfaces and said terminals of said package substrate, and serving as a wiring line to said plurality of power switching device chips; and

a resin member configured to seal said plurality of power switching device chips and said drive-use IC chip as a single package.

Claim 2 (Original): The semiconductor module according to claim 1, wherein at least one of said plurality of heat sinks is insulated from said drive-use IC chip and extends to overlie said drive-use IC chip.

Claim 3 (Original): The semiconductor module according to claim 2, wherein said drive-use IC chip is less in thickness than one of said power switching device chips having its back surface on which the heat sink extending to overlie said drive-use IC chip is disposed.

Claim 4 (Original): The semiconductor module according to claim 3, wherein said heat sink extending to overlie said drive-use IC chip is flat.

Claim 5 (Original): The semiconductor module according to claim 1, wherein said plurality of heat sinks are electrically connected respectively to source electrodes or drain electrodes of said back surfaces of corresponding ones of said plurality of power switching device chips and also electrically connected to terminals of said package substrate.

Claim 6 (Original): The semiconductor module according to claim 1, wherein a respective one of said plurality of heat sinks has a one surface and a remaining surface on the opposite side thereof, said one surface facing the back surface of a corresponding one of said plurality of power switching device chips, and wherein

said remaining surface is exposed to outside of said semiconductor module.

Claim 7 (Original): The semiconductor module according to claim 1, wherein gate electrodes and source electrodes are formed at said top surfaces of said plurality of power switching device chips, and wherein drain electrodes are formed at said back surfaces.

Claim 8 (Original): The semiconductor module according to claim 1, wherein said drive-use IC chip is not covered with the heat sinks.

Claim 9 (Original): The semiconductor module according to claim 1. wherein at least one of said plurality of power switching device chips has a diode as built therein, said diode being connected in parallel to one of said transistors.

Claim 10 (Original): The semiconductor module according to claim 1, wherein said plurality of heat sinks are entirely covered with said resin member.

Claims 11-15 (Canceled).

Claim 16 (New): A semiconductor module according to claim 1, wherein said plurality of power switching device chips and said drive IC chips are mounted on said package substrate by flip-chip bonding.

Claim 17 (New): A DC-DC converter with a semiconductor module, said semiconductor module comprising:

a package substrate with a plurality of terminals and a wiring line connected to said terminals;

a plurality of power switching device chips having a first electrode on top surfaces and a second electrode on back surfaces, configured to flow current between said first and second electrode, and being mounted above said package substrate while letting said top surfaces face said package substrate;

a drive-use integrated circuit ("IC") chip mounted above said package substrate, configured to drive gates of transistors formed in said plurality of power switching device chips;

a plurality of heat sinks disposed above said second electrode on said back surfaces of said plurality of power switching device chips, electrically connected to said second electrode on said back surfaces and said terminals of said package substrate, and serving as a wiring line to said plurality of power switching device chips; and

a resin member configured to seal said plurality of power switching device chips and said drive-use IC chip as a single package.

Claim 18 (New): The DC-DC converter according to claim 17, further comprising a pulse width modulation (PWM) control IC chip configured to control driving of said gates by said drive-use IC chip.

Claim 19 (New): The DC-DC converter according to claim 17, further comprising:

a central processing unit (CPU) to which electrical power is supplied thereto by said DC-DC converter; and

another heat sink being disposed above said CPU and extending to reach a location covering said semiconductor module.

Claim 20 (New): A semiconductor module comprising:

a package substrate;

first power switching device chips having electrodes on top surfaces and on back surfaces, configured to flow current between said electrodes, and being mounted above said package substrate while letting said top surfaces face said package substrate;

second power switching device chips having electrodes on top surfaces and back surfaces, configured to flow current between said electrodes, and being mounted above said package substrate while letting said top surface face said package substrate;

a drive-use integrated circuit ("IC") chip mounted above said package substrate, configured to drive gates of transistors formed in said first and second power switching device chips;

a first heat sink disposed above said electrode on said back surfaces of said first power switching device chip,

a second heat sink disposed above said electrode on said back surfaces of said second power switching device chip, and

a resin member configured to seal said first and second power switching device chips and said drive-use IC chip as a single package,

wherein said electrode on said back surface of said first power switching device chip is electrically connected to said electrode on said top surfaces of said second power switching device chip via said first heat sink.

Claim 21 (New): The semiconductor module according to claim 20, wherein said package substrate comprises a plurality of outer input/output terminals, and wherein said first and second heat sinks are electrically connected to said corresponding outer input/output terminals, respectively.

Claim 22 (New): The semiconductor module according to claim 20, wherein said second heat sink is insulated from said drive-use IC chip and extends to overlie said drive-use IC chip.

Claim 23 (New): The semiconductor module according to claim 20, wherein a gate electrode and a source electrode are formed on top surfaces of said first and second power switching device chips, and wherein a drain electrode is formed on a back surface thereof.

Claim 24 (New): The semiconductor module according to claim 20, further comprising a built-in diode parallel-connected to a MISFET formed in said first power switching devices.

Claim 25 (New): The semiconductor module according to claim 20, wherein said first and second power switching device chips and drive-use IC chips are mounted above said package substrate by flip-chip bonding.